

## PATENT COOPERATION TREATY

## PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY  
(Chapter II of the Patent Cooperation Treaty)

REC'D 14 FEB 2005

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(PCT Article 36 and Rule 70)

Applicant's or agent's file reference <b>P17115WO</b>		<b>FOR FURTHER ACTION</b> See Form PCT/IPEA/416																									
International application No. <b>PCT/SE2002/002427</b>	International filing date (day/month/year) <b>19-12-2002</b>	Priority date (day/month/year) <b>-</b>																									
International Patent Classification (IPC) or national classification and IPC <b>H02G3/04, H05K7/14 // H04K5/02, H05K7/18</b>																											
Applicant <b>Telefonaktiebolaget LM Ericsson (publ) et al</b>																											
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>3</u> sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input checked="" type="checkbox"/> (sent to the applicant and to the International Bureau) a total of <u>2</u> sheets, as follows:</p> <p style="margin-left: 40px;"><input checked="" type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p style="margin-left: 40px;"><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>																											
<p>4. This report contains indications relating to the following items:</p> <table border="0"> <tr> <td><input checked="" type="checkbox"/></td> <td>Box No. I</td> <td>Basis of the report</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. II</td> <td>Priority</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. III</td> <td>Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. IV</td> <td>Lack of unity of invention</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>Box No. V</td> <td>Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. VI</td> <td>Certain documents cited</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. VII</td> <td>Certain defects in the international application</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. VIII</td> <td>Certain observations on the international application</td> </tr> </table>				<input checked="" type="checkbox"/>	Box No. I	Basis of the report	<input type="checkbox"/>	Box No. II	Priority	<input type="checkbox"/>	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability	<input type="checkbox"/>	Box No. IV	Lack of unity of invention	<input checked="" type="checkbox"/>	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement	<input type="checkbox"/>	Box No. VI	Certain documents cited	<input type="checkbox"/>	Box No. VII	Certain defects in the international application	<input type="checkbox"/>	Box No. VIII	Certain observations on the international application
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Date of submission of the demand <b>17-05-2004</b>		Date of completion of this report <b>08-02-2005</b>																									
Name and mailing address of the IPEA/SE Patent- och registreringsverket Box 5055 S-102 42 STOCKHOLM Facsimile No. +46 8 667 72 88		Authorized officer  <b>Sara Thulin/MN</b> Telephone No. +46 8 782 25 00																									

Form PCT/IPEA/409 (cover sheet) (January 2004)

# INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/SE2002/002427

## Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ This report is based on a translation from the original language into the following language \_\_\_\_\_, which is the language of a translation furnished for the purposes of:

- ☐ international search (under Rules 12.3 and 23.1(b))  
☐ publication of the international application (under Rule 12.4)  
☐ international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the elements of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

☐ the international application as originally filed/furnished

☒ the description:  
 pages 1-9 \_\_\_\_\_ as originally filed/furnished

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

☒ the claims:  
 pages \_\_\_\_\_ as originally filed/furnished

pages\* \_\_\_\_\_ as amended (together with any statement) under Article 19

pages\* 10-11 received by this Authority on 2004-11-18

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

☒ the drawings:  
 pages 1-5 \_\_\_\_\_ as originally filed/furnished

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

☐ the description, pages \_\_\_\_\_

☐ the claims, Nos. \_\_\_\_\_

☐ the drawings, sheets/figs \_\_\_\_\_

☐ the sequence listing (specify): \_\_\_\_\_

☐ any table(s) related to the sequence listing (specify): \_\_\_\_\_

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

☐ the description, pages \_\_\_\_\_

☐ the claims, Nos. \_\_\_\_\_

☐ the drawings, sheets/figs \_\_\_\_\_

☐ the sequence listing (specify): \_\_\_\_\_

☐ any table(s) related to the sequence listing (specify): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

# INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/SE2002/002427

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

## 1. Statement

Novelty (N)	Claims	<u>1-6</u>	YES
	Claims		NO
Inventive step (IS)	Claims	<u>1-6</u>	YES
	Claims		NO
Industrial applicability (IA)	Claims	<u>1-6</u>	YES
	Claims		NO

## 2. Citations and explanations (Rule 70.7)

Documents cited in the International Search Report:

D1: US 5067678 A  
D2: US 4937400 A  
D3: US 5358011 A  
D4: US 6388891 B1  
D5: US 5774617 A

Document D1 discloses a cable routing system having a plurality of troughs. The cable routing system is designed to carry optical fiber cables (see column 1 line 40 - line 58).

Document D2 discloses a retaining apparatus for optical conductors. The apparatus defines a rectangular channel in which the conductors are housed (see abstract).

Document D3-D5 represent the relevant prior art to the claimed invention.

The invention according to new claims 1-6, filed with the letter of 2004-11-18, comprises openings for insertion of the cables and the cables are inserted in one end and fed through the duct.

This is not known in any of D1-D5.

The invention according to new claims 1-6, filed with the letter of 2004-11-18, is new and is considered to involve an inventive step. The invention is industrially applicable.

CLAIMS

1. Arrangement for flexible installation of an optical patch cable (PC1) in a telecommunication station (TS) between equipment (AE4, AE7) in the station, the arrangement being characterised by a micro duct (1) for guidance of the patch cable, the duct having duct end openings (E4, E7) related to the equipment, the end openings being adapted to receive the patch cable (PC1) for insertion into the micro duct (1).
2. Arrangement for flexible installation of the optical patch cable according to claim 1 comprising:
- means for feeding the patch cable (PC1) through the duct (1);
  - means for adjusting the patch cable length between the equipment (AE4, AE7);
  - means for assembling a connector (C7) to at least one end of the patch cable.
3. Arrangement for flexible installation of the optical patch cable according to claim 1 or 2 whereby the duct (1) comprises spliced duct parts (1a, 1b, 1c).
4. Arrangement for flexible installation of the optical patch cable according to any of claim 1-3 whereby the duct comprises more than two end openings.

AMENDED SHEET

5. Method for flexible installation of an optical patch cable (PC1) in a telecommunication station (TS) between equipment (AE4, AE7) in the station, the method being **characterised** by the following step:

- 5       - installation of a micro duct (1) in the telecommunication station (TS), the duct being installed with duct end openings (E4, E7) related to the equipment;
- 10       - inserting the patch cable (PC1) into the micro duct (1) through one of the end openings (E4, E7);
- feeding the patch cable (PC1) through the duct (1) and through another one of the end openings (E4, E7);
- adjusting the patch cable length between the equipment (AE4, AE7);
- 15       - assembling a connector (C7) to at least one end of the patch cable.
- 6. Method for flexible installation of the optical patch cable according to claim 5 whereby the duct is guided through a cabinet wall entrance in the telecommunication
- 20       station.

**AMENDED SHEET**